



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,435	12/10/2003	Kazumi Ono	074418-0125	5159

22428 7590 09/11/2006

FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

GOODEN JR, BARRY J

ART UNIT	PAPER NUMBER
----------	--------------

3616

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,435

Applicant(s)

ONO ET AL.

Examiner

Barry J. Gooden Jr.

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2006 (RCE Amendment).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3616

DETAILED ACTION

1. This office action is in response to the RCE filed 08/21/2006. Currently claims 1, 4, 5, 7, 10-12, and 15 are amended, claims 2, 3, 8, 9, 13, and 14 are as previously presented, claim 6 is canceled, and claims 16 and 17 are new.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-10, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraki et al., US Patent 5,961,142, in view of Nakashima et al., US Patent 6,299,198 B1, and in view of Gray et al., US Patent 6,402,189 B1.

In regards to claims 1-10, 16 and, 17, Shiraki et al. show all of the claimed elements including an airbag apparatus for a vehicle comprising:

an airbag lid (D1) provided by a fragile line on a resin instrument panel (10);

a door for holding (41) disposed directly on a back surface of said airbag lid (See Figures 6 and 7);

Art Unit: 3616

said holding door (41) including:

a door body portion positioned in the back surface of the airbag lid (See Figure 1);

an installation portion (45) to the instrument panel (10) disposed around said airbag lid (D1); and

a hinge portion (49 and 32a) disposed between the door body portion and the installation portion (45);

wherein the door body portion of said holding door (41) includes a longitudinal bead extending from the hinge portion side to the leading end side of the door body portion and a lateral bead which is extended along said hinge portion, and said lateral bead and said longitudinal bead are constructed to be crossed (50a) (See Figure 4);

wherein it further includes a plurality of said longitudinal beads provided on said door body portion (See Figure 4);

including another lateral bead which is parallel to said lateral bead, wherein the lateral beads and the longitudinal beads are constructed to be substantially a lattice form (50a); and

wherein said holding door (41) comprises metal (Column 3, line 35).

wherein the door body portion of said holding door (41) includes a longitudinal bead extending from the hinge portion side to the leading end side of the door body portion and a lateral bead which is extended along said hinge portion, and said lateral bead and said longitudinal bead are constructed to be crossed (50a) (See Figure 4);

wherein it further includes a plurality of said longitudinal beads provided on said door body portion (See Figure 4);

including another lateral bead which is parallel to said lateral bead, wherein the lateral beads and the longitudinal beads are constructed to be substantially a lattice form (50a).

Shiraki et al. show all of the claimed elements excluding bosses across the door body portion; however, Nakashima et al. teach the use of bosses (5d) across a holding door (5) body portion (See Figure 4). Therefore, It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the door body portion of Shiraki et al. in view of the teachings of Nakashima et al. to include bosses across the door body portion so as to provide a secure, reliable and

Art Unit: 3616

integral connection between the door body portion of the holding door and the back surface of the airbag lid.

Examiner notes that Shiraki et al. in view of Nakashima et al. teaches a door body portion positioned both in and directly on the back surface of the airbag lid.

Shiraki et al. discloses all of the claimed elements excluding a U shaped fragile portion, lid and door body portion.

Gray et al. teaches of an airbag lid (10), zoned ("separated in airbag door 10 and trim member 20 portions" Column 6, lines 29-30) from a fixing portion ("a trim member portion") by a U shaped fragile line or square shaped fragile line (Column 6, lines 9-17) in an instrument panel (8, "substrate"), and opened to said fixing portion by the break of the U shaped fragile line when an airbag body is expanded; and

Wherein spaces (63) between the both sides of the airbag lid and the both sides of the door body portion are formed by adopting a smaller width dimension of the door body portion of the holding door than a width dimension of the airbag lid, the spaces in the width direction between the both sides of the airbag lid and the both sides of the door body portion are constructed to be larger gradually toward the leading end side by cutting crosswise the corner portions of said door body portion (See Figure 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the fragile portion, lid and door body portion of Shiraki et al. in view of the teachings of Gray et al. to include a U shape and spaces so as to reduce the overall weight and cost, due to material redundancy, of the air bag door and add stiffness, thereby keeping the integrity of the door intact (Column 12, lines 25-35).

Shiraki et al. discloses all of the claimed elements excluding wherein an edge portion of the door body portion of the holding door is arranged to press a position of the airbag lid from the back surface thereof which is apart from the fragile line, so that a tension force acts on the fragile line and then the fragile line is broken by the tension force when the airbag body is expanded.

Gray et al. teaches of an edge portion of the door body portion of the holding door being arranged to press a position of the airbag lid from the back surface thereof which is apart from the fragile line (Reference is made to Figure 11). Examiner notes Gray et al. teaches a structure meeting the structural limitations set forth, as such it would operate the same, thus the tension force would break the fragile line.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the fragile portion, lid and door body portion of Shiraki et al. in view of the teachings of Gray et al. to include a door arranged to press a portion apart from the fragile line so as to increase the tearing force applied to fragile line by allowing the fragile line to be put in tension with a moment about the surface as well as in shear, thereby keeping the integrity of the door intact and reducing the amount of inflation force necessary to facilitate the airbag door opening.

5. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraki et al., US Patent 5,961,142, in view of Nakashima et al., US Patent 6,299,198 B1.

In regards to claims 1-4 Shiraki et al. discloses all of the claimed elements including an airbag apparatus for a vehicle comprising:

- an airbag lid (D1) provided by a fragile line on a resin instrument panel (10);

- a door for holding (41) disposed on a back surface of said airbag lid (See Figures 6 and 7), said holding door (41) including:

 - a door body portion positioned in the back surface of the airbag lid (See Figure 1);

 - a first installation portion (45) to the instrument panel (10) disposed around said airbag lid (D1);

 - and a hinge portion (49 and 32a) disposed between the door body portion and the installation portion (45);

 - wherein the door body portion of said holding door (41) includes a longitudinal bead extending from the hinge portion side to the leading end side of the door body portion and a lateral bead which is extended along said hinge portion, and said lateral bead and said longitudinal bead are constructed to be crossed (50a) (See Figure 4);

wherein it further includes a plurality of said longitudinal beads provided on said door body portion (See Figure 4);

including another lateral bead which is parallel to said lateral bead, wherein the lateral beads and the longitudinal beads are constructed to be substantially a lattice form (50a); and

wherein said holding door (41) comprises metal (Column 3, line 35).

Shiraki et al. show all of the claimed elements excluding bosses across the door body portion; however, Nakashima et al. teach the use of bosses (5d) across a holding door (5) body portion (See Figure 4). Therefore, It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the door body portion of Shiraki et al. in view of the teachings of Nakashima et al. to include bosses across the door body portion, specifically within the lattice form, so as to provide a secure, reliable and integral connection between the door body portion of the holding door and the back surface of the airbag lid.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraki et al. in view of Nakashima et al., as applied to claim 11 above, and further in view of Gray et al.

In regards to claim 15, Shiraki et al. in view of Nakashima et al. teaches all of the claimed elements excluding a space between the sides of the airbag lid and the door body portion increasing towards a leading end side.

Gray et al. discloses spaces (63) between the both sides of the airbag lid and the both sides of the door body portion are formed by adopting a smaller width dimension of the door body portion of the holding door than a width dimension of the airbag lid, the spaces in the width direction between the both sides of the airbag lid and the both sides of the door body portion are constructed to be larger gradually toward the leading end side by cutting crosswise the corner portions of said door body portion (Reference is made to Figure 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the fragile portion, lid and door body portion of Shiraki et al. in view of the teachings of

Art Unit: 3616

Gray et al. to include a U shape and spaces so as to reduce the overall weight and cost, due to material redundancy, of the air bag door and add stiffness, thereby keeping the integrity of the door intact (Column 12, lines 25-35).

Response to Arguments

7. Applicant's arguments filed 8/21/2006 have been fully considered but they are not persuasive.

Applicant's arguments with respect to claims wherein Gray et al. was used as a base reference have been considered but are moot in view of the new ground(s) of rejection.

In regards to applicant's remarks concerning Shiraki et al. in view of Nakashima et al., examiner maintains Shiraki et al. in view of Nakashima et al. teaches all of the claimed elements. With regards to the structural limitations Shiraki et al. in view of Nakashima et al. teaches a structure that meets all of the limitations, as such, it would therefore prevent damage upon a fixed state between the airbag lid and the door body portion when the airbag is expanded. In addition, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

Examiner also notes that "vicinity" is a relative term and as recited examiner maintains Shiraki et al. in view of Nakashima et al. discloses all of the claimed elements.

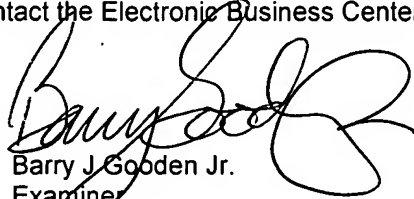
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry J. Gooden Jr. whose telephone number is (571) 272-5135. The examiner can normally be reached on Monday-Friday 8:00am-4:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 8/30/06
Barry J. Gooden Jr.
Examiner
Art Unit 3616

BJG

 9/1/06
PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600